

REMARKS

By this Amendment, Applicant amends claim 1-4, 6-12, and 15, and adds new claims 16-18. Claims 1-18 are therefore pending in this application.

In the Office Action of October 5, 2004,¹ claims 1-7, 9, 10 and 12-15 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,393,488 to *Araujo* (“*Araujo*”) in view of U.S. Patent No. 6,615,357 to *Boden et al.* (“*Boden*”); and claims 8 and 11 were rejected under 35 U.S.C. § 103(a) as unpatentable over *Araujo* in view of *Boden* further in view of U.S. Patent No. 5,918,019 to *Valencia* (“*Valencia*”). Applicant addresses the rejections, as well as the new claims, below.

Rejection of claims 1-7, 9, 10 and 12-15 under 35 U.S.C. § 103(a)

Applicant traverses the rejection of claims 1-7, 9, 10 and 12-15 under 35 U.S.C. § 103(a) because a case for *prima facie* obviousness has not been established based on *Araujo* and *Boden*. To establish *prima facie* obviousness under 35 U.S.C. § 103(a), three requirements must be met. First, the applied references, taken alone or in combination, must teach or suggest each and every element recited in the claims. *See M.P.E.P. § 2143.03* (8th ed. 2001). Second, there must be some suggestion or motivation, either in the reference(s) or in the knowledge generally available to one of ordinary skill in the art, to combine or modify the reference(s) in a manner resulting in the claimed invention. Third, a reasonable expectation of success must exist. Moreover, each of these requirements must “be found in the prior art, and not be based on applicant’s disclosure.” *M.P.E.P. § 2143* (8th ed. 2001).

¹ The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether or not any such statement is identified herein, Applicant declines to automatically subscribe to any statement or characterization in the Office Action.

With regard to claim 1, *Araujo* fails to teach or suggest at least the claimed “determining.” *Araujo* is directed to resolving network address translator (NAT) IP subnet address conflicts (Abstract). The relied-upon portion of *Araujo* discloses a “NAT subnet support system 330” that provides an alternative source address for a device included in its primary LAN (PC 333) when that device requests an address for a service (FTP server 321) in a primary LAN of another NAT subnet support system (320) and the address of that service conflicts with an address of a device in the primary LAN of NAT system 330 (col. 6, lines 26-30; Office Action “OA” at 2). It also discloses that the NAT subnet support system 330 provides translations “for communication frames indicating the alternative address as a destination” (col. 6, lines 30-33). These disclosures do not teach or suggest the claimed “determining.” Providing an alternative address for a device in response to an address conflict and providing translation for communications specifying that alternative address does not constitute “determining, by . . . at least one additional processor, a first virtual address for the first processor based on the information received on behalf of the second processor and a second virtual address for the second processor based on the information received on behalf of the first processor, such that the first and second virtual addresses uniquely identify the first and second processors, respectively,” as recited in claim 1. While NAT system 330 provides alternative addresses, it does not determine an alternative address for a second device based on information received on behalf of a first device and determine an alternative address for the first device based on information received on behalf of the second device. Indeed, neither the relied-upon disclosure, nor any other disclosure, in *Araujo* teaches or suggests the claimed “determining.”

In addition, *Araujo* fails to teach or suggest “providing, by the at least one additional processor, to the first processor the second virtual address and to the second processor the first

virtual address to enable one or more tunnels between the first and the second processors,” as recited in claim 1. While acknowledging that *Araujo* does not disclose “[enabling] . . . one or more tunnels between the first and the second processors,” the Examiner alleges that the “providing” feature of claim 1 is “partly” disclosed (OA at 3). Specifically, the Examiner notes *Araujo*’s disclosure of creating an “alternative address mapping table” (col. 7, lines 3-13; OA at 3). *Araujo* discloses that NAT system 320 creates an alternative address mapping table if a destination address in a received communication is “the same as an address of a device included in its primary LAN” (col. 7, lines 3-6). NAT 320 inserts alternative addresses for devices included in its primary network in communications to other networks. It also translates alternative addresses received in communications from the other networks into corresponding network addresses and forwards those communications to the corresponding devices (col. 7, lines 6-13). According to the Examiner, the “first processor is represented by the device in the first network . . . the second processor is represented by the device in the second network . . . [and the] additional processor is represented by the NAT system” (OA at 3).

Applicant disagrees with the Examiner’s interpretation of *Araujo*. Besides lacking disclosure of “one or more tunnels,” as recited in claim 1, *Araujo* does not teach or suggest “providing, by the at least one additional processor, to the first processor the second virtual address and to the second processor the first virtual address,” as claimed. Assuming, for the sake of argument, that a device in the network of NAT system 320 were a “first processor,” a device in another network were a “second processor,” and NAT system 320 were an “additional processor,” and also assuming alternative addresses were consistent with virtual addresses, *Araujo* still would not disclose the claimed “providing” (i.e., NAT system 320 does not provide to the device in its network an alternative address for the other network device determined based

on information received on behalf of the device in its network, and provide to the other network device an alternative address for the device in its own network determined based on information received on behalf of the other network device). The relied-upon disclosure merely describes that NAT system 320 inserts an alternative address in a communication intended for another network and then translates that alternative address back to the LAN address when the alternative address is identified as the destination in a response from the other network. Neither the relied-upon disclosure, nor any other disclosure, in *Araujo* teaches or suggests (in whole or in part) the “providing” feature recited in claim 1.

Boden does not cure *Araujo*’s deficiencies. *Boden* is directed to providing IP security in a VPN using network address translation by performing different types of VPN network address translations (Abstract). Although, as the Examiner notes, *Boden* mentions defining a tunnel network address translation rule and applying the rule to a tunnel endpoint (col. 6, lines 4-9; OA at 3), the reference does not teach or suggest at least the “determining” and “providing” features of claim 1. Accordingly, neither *Araujo* nor *Boden*, nor any combination thereof, teaches or suggests each and every feature of claim 1. As such, *prima facie* obviousness has not been established.

Moreover, *prima facie* obviousness has not been established at least because the requisite motivation to combine *Araujo* and *Boden* is lacking. Determinations of obviousness must be supported by evidence on the record. See *In re Zurko*, 258 F.3d 1379, 1386 (Fed. Cir. 2001) (finding that the factual determinations central to the issue of patentability, including conclusions of obviousness by the Board, must be supported by “substantial evidence”). Further, the desire to combine references must be proved with “substantial evidence” that is a result of a “thorough

and searching” factual inquiry. *In re Lee*, 277 F.3d 1338, 1343-1344 (Fed. Cir. 2002) (quoting *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52).

In this case, the Office Action does not show, by substantial evidence, that a skilled artisan considering the *Araujo* and *Boden*, and not having the benefit of Applicant’s disclosure, would have been motivated to combine the references in a manner resulting in Applicant’s claimed combination. The Examiner alleged that a skilled artisan would have combined the references “because tunneling allows for secure distribution of data within an insecure network” (OA at 3). This allegation in the Office Action does not show that a skilled artisan would have combined the references as alleged. Further, the Examiner provides no reasoning or explanation as to how *Boden*’s teachings of defining and applying tunnel network address translation rules would be combined with *Araujo* to achieve the elements recited in claim 1.

Applicant calls attention to M.P.E.P. § 2143.01, which makes clear that: “[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination” (citations omitted). The Office Action does not show that the cited art “suggests the desirability” of the alleged combination. Applicant submits that the conclusions in the Office Action were not reached based on facts gleaned from the cited references and that, instead, teachings of the present application were improperly used in hindsight to reconstruct the prior art. For at least these additional reasons, *prima facie* obviousness has not been established with respect to claim 1. Because *prima facie* obviousness has not been established, the § 103(a) rejection of claim 1 should be withdrawn.

Independent claim 12, as currently presented, recites a combination including:

means for determining a first virtual address for the first processor based on the information received on behalf of the second

processor and a second virtual address for the second processor based on the information received on behalf of the first processor, such that the first and second virtual addresses uniquely identify the first and second processors, respectively; and

means for providing to the first processor the second virtual address and to the second processor the first virtual address to enable one or more tunnels between the first and the second processors.

Although claim 12 is of different scope than claim 1, the § 103(a) rejection of claim 12 should be withdrawn for at least reasons similar to those presented above in connection with claim 1.

Independent claim 15, as currently presented, recites a combination including:

a controller that determines a first virtual address for the first processor based on the information received on behalf of the second processor and a second virtual address for the second processor based on the information received on behalf of the first processor such that the first and second virtual addresses uniquely identify the first and second processors, respectively, and provides to each of the first and second processors the first and second virtual addresses to enable one or more tunnels between the first and the second processors.

While acknowledging that *Araujo* fails to disclose “one or more tunnels between the first and the second processors,” as recited in claim 15, the Examiner alleges that *Araujo* partly discloses the claimed “controller” (OA at 7). Applicant disagrees. *Araujo* does not wholly or partly disclose the claimed “controller.” The Examiner notes *Araujo*’s disclosure of establishing if there is a subnet address conflict (col. 4, lines 54-56; col. 7, lines 53-65; Fig. 5, item 514). Specifically, *Araujo* mentions a NAT support system comparing/contrasting a source identifier or a destination identifier to addresses included in its network addresses to determine whether a conflict exists between the address of a device initiating a DNS request and devices in the same network as the device associated with the URL name. A system that merely compares a source identifier or a destination identifier to network addresses does not teach or suggest the

“controller” recited in claim 15. Indeed, neither the relied-upon disclosure, nor any other disclosure, in *Araujo* teaches or suggests the claimed “controller.”

For at least reasons similar to those presented above in connection with claim 1, *Boden* does not cure *Araujo*’s deficiencies and the requisite motivation to combine *Boden* with *Araujo* is lacking. A case for *prima facie* obviousness has thus not been established with respect to claim 15, and the § 103(a) rejection of that claim should be withdrawn.

Claims 2-7, 9 and 10 depend upon base claim 1; and claims 13 and 14 depend upon base claim 12. The rejection of claims 2-7, 9, 10, 13 and 14 should be withdrawn for at least reasons similar to those presented above in connection with claims 1 and 12. Applicant thus requests withdrawal of the rejection of claims 1-7, 9, 10 and 12-15 under 35 U.S.C. § 103(a) and the timely allowance of those claims.

Rejection of claims 8 and 11 under 35 U.S.C. § 103(a)

Applicant traverses the rejection of claims 8 and 11 under 35 U.S.C. § 103(a) because a case for *prima facie* obviousness has not been established based on *Araujo*, *Boden* and *Valencia*.

Claim 8 depends upon claim 1. As explained above, neither *Araujo* nor *Boden* teaches or suggests each and every feature of claim 1. *Araujo* and *Boden* therefore fail to teach or suggest each and every feature of claim 8, which includes all of the features of claim 1. As noted above, neither *Araujo* nor *Boden* teaches or suggests the claim 1 “determining” and “providing” recitations, which are also required by claim 8.

Valencia does not cure the deficiencies of *Araujo* and *Boden*. *Valencia* is directed to providing “virtual direct dial-up service” to private networks (Abstract). *Valencia* does not teach or suggest at least the “determining” and “providing” recited in claim 1 and required by claim 8. Accordingly, neither *Araujo*, *Boden*, nor *Valencia*, nor any combination thereof, teaches or suggests each and every feature of claim 8.

Moreover, the requisite motivation for combining the references is lacking. For at least reasons similar to those presented above in connection with claim 1, the requisite motivation for combining *Araujo* and *Boden* is lacking. Additionally, the Office Action does not show, by substantial evidence, that a skilled artisan would have been motivated to combine the teachings *Valencia* with the alleged combination of *Araujo* and *Boden* in a manner resulting in Applicant's claimed combination. The Examiner alleged that a skilled artisan would have combined the references "because the firewall is necessary to protect a private network from external intruders" (OA at 8). This allegation in the Office Action is not properly supported and does not show that a skilled artisan would have combined the references as alleged. For example, the Examiner provides no evidence supporting the assertion that a "firewall is necessary." In addition, the mere fact that a firewall provides protection to a private network does not in and of itself establish that a skilled artisan would have combined the references as alleged.

The Office Action does not show that the cited art "suggests the desirability" of the alleged combination. The assertion that a firewall protects a private network does not show that the cited art suggests the alleged combination. Applicant submits that the conclusions in the Office Action were not reached based on facts gleaned from the cited references and that, instead, teachings of the present application were improperly used in hindsight to reconstruct the prior art.

For at least the foregoing reasons, *prima facie* obviousness has not been established with respect to claim 8 and the rejection of that claim under 35 U.S.C. § 103(a) should be withdrawn. Applicant therefore requests withdrawal of the § 103(a) rejection and the timely allowance of claim 8.

Claim 11 depends upon claim 1. As explained above, neither *Araujo*, *Boden* nor *Valencia* teaches or suggests each and every feature of claim 1. These references therefore fail to teach or suggest each and every feature of claim 11, which includes all of the features of claim 1. In addition, the Examiner concedes that neither *Araujo* nor *Boden* teaches or suggests the “cryptographic information” subject matter recited in claim 11 (OA at 8). Because the applied references, taken alone or in combination, fail to teach or suggest each and every element recited in claim 11, *prima facie* obviousness has not been established.

Furthermore, for at least reasons similar to those presented above in connection with claim 8, the requisite motivation for combining *Araujo*, *Boden* and *Valencia* is lacking. Additionally, the Examiner’s allegations with regard to claim 11 do not show that a skilled artisan would have been motivated to combine the teachings *Valencia* with the alleged combination of *Araujo* and *Boden* in a manner resulting in the combination recited in claim 11. The Examiner alleged that a skilled artisan would have combined the references “because encrypting information before it is sent prevents an attacker from being able to decipher the information” (OA at 8). This allegation in the Office Action is not properly supported and does not show that a skilled artisan would have combined the references as alleged. The mere fact that encryption may prevent an attacker from being able to decipher information does not in and of itself establish that a skilled artisan would have combined the references as alleged. Applicant submits that the conclusions in the Office Action were not reached based on facts gleaned from the cited references and that, instead, teachings of the present application were improperly used to reconstruct the prior art.

For at least the foregoing reasons, *prima facie* obviousness has not been established with respect to claim 11 and the rejection of that claim under 35 U.S.C. § 103(a) should be

withdrawn. Applicant therefore requests withdrawal of the § 103(a) rejection and the timely allowance of claim 11.

New claims 16-18

New claims 16, 17 and 18 should be allowed at least because those claims depend from allowable claims 1, 12 and 15, respectively. Applicant further submits that the applied art fails to teach or suggest all of the features recited in new claims 16-18. For at least these reasons, Applicant requests the timely allowance of new claims 16-18.

Conclusion

The claimed invention is neither anticipated nor rendered obvious in view of the art cited against this application. Applicant requests the Examiner's reconsideration of the application in view of the foregoing, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

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By:


Frank A. Italiano
Reg. No. 53,056